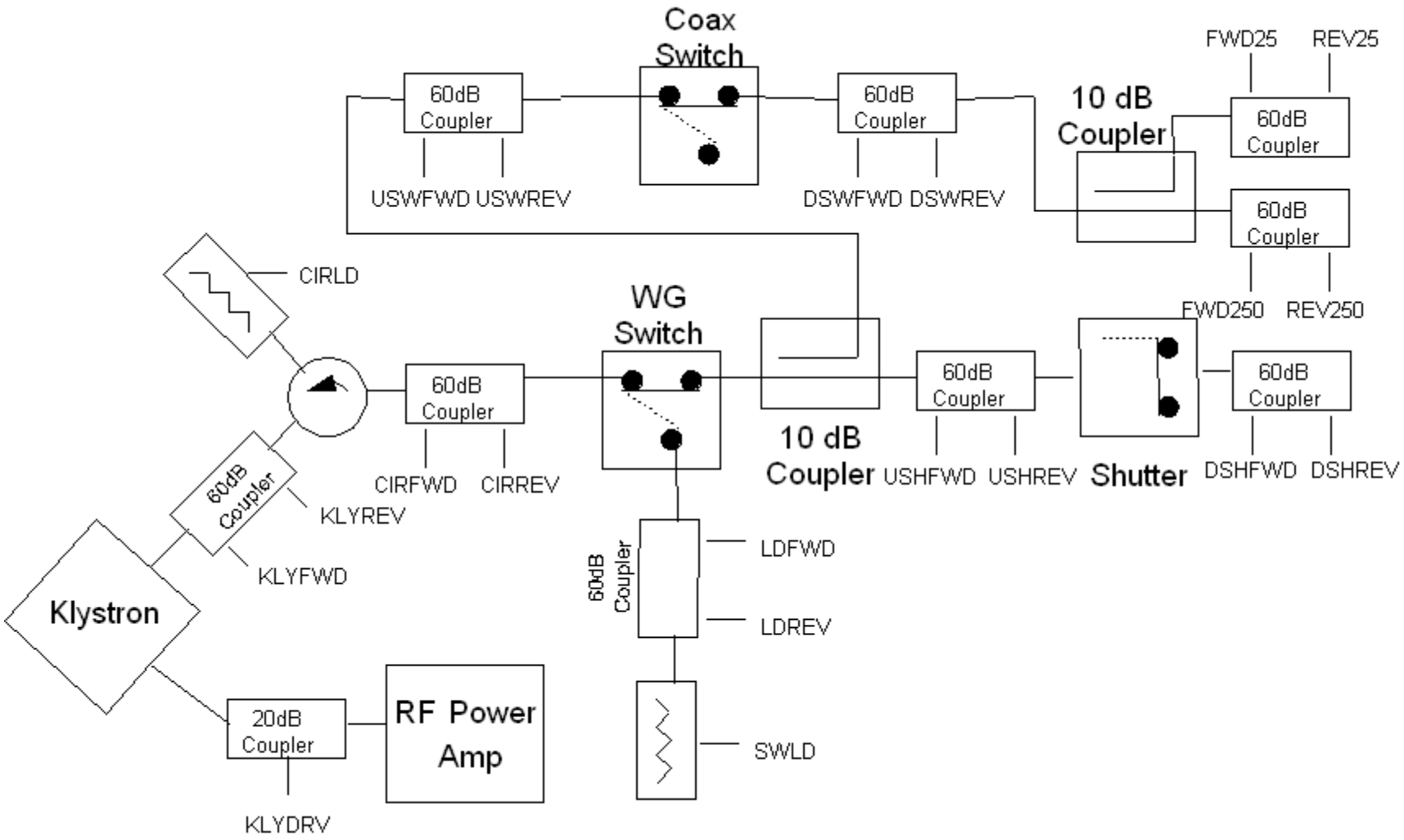
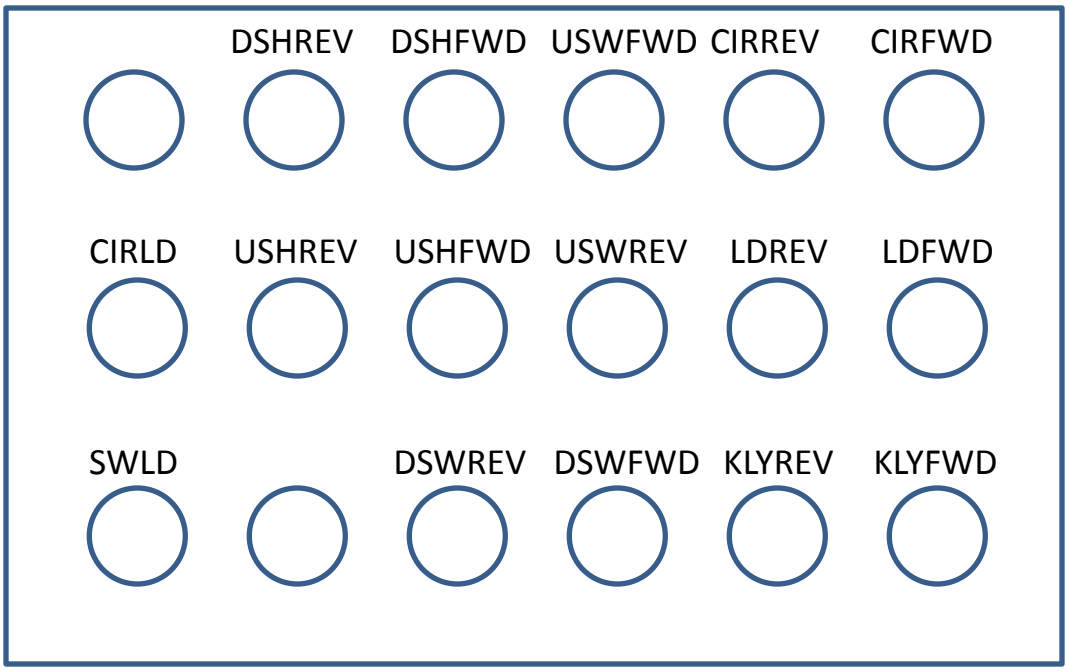
Block Diagram of Fanback Couplers



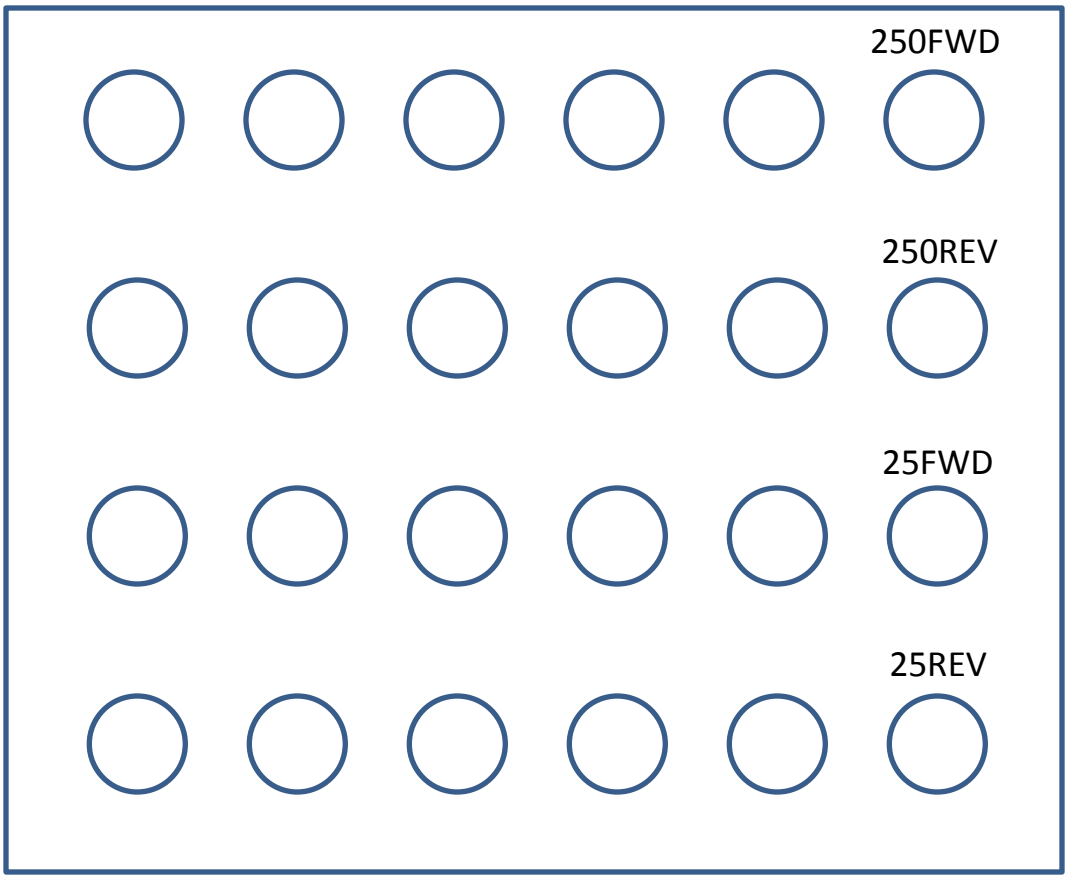
Top Panel Layout

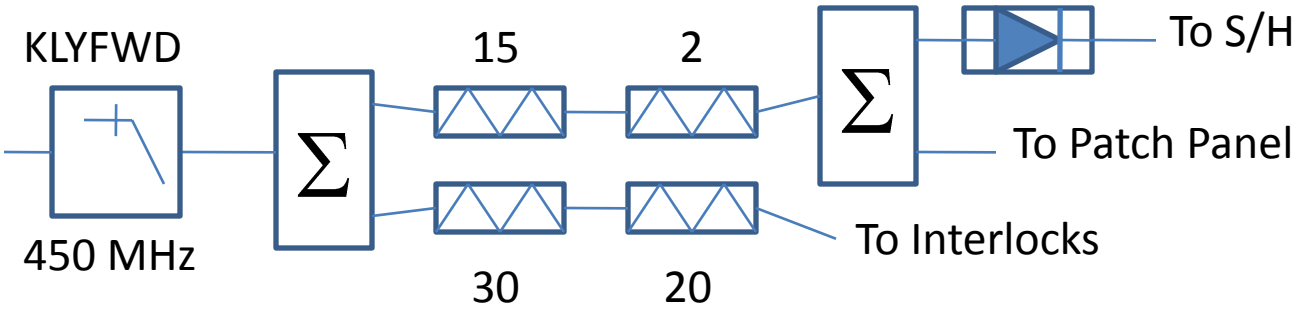
PD-R4 Top Plate (looking from the top)

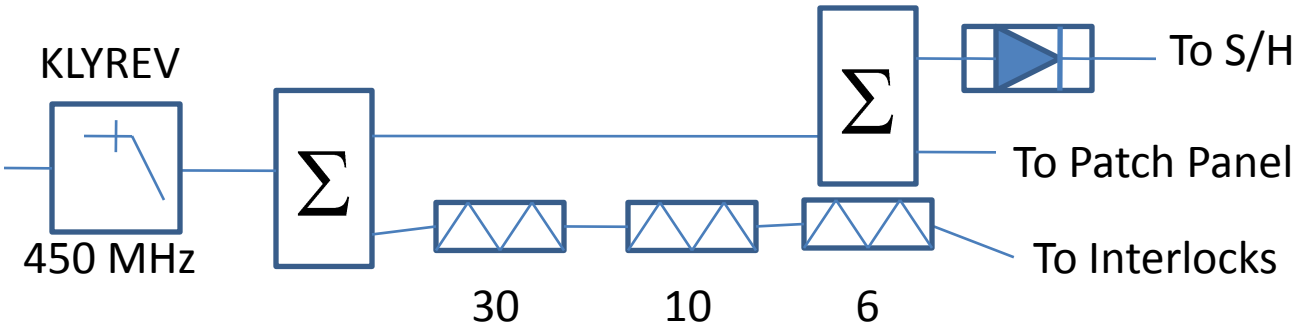


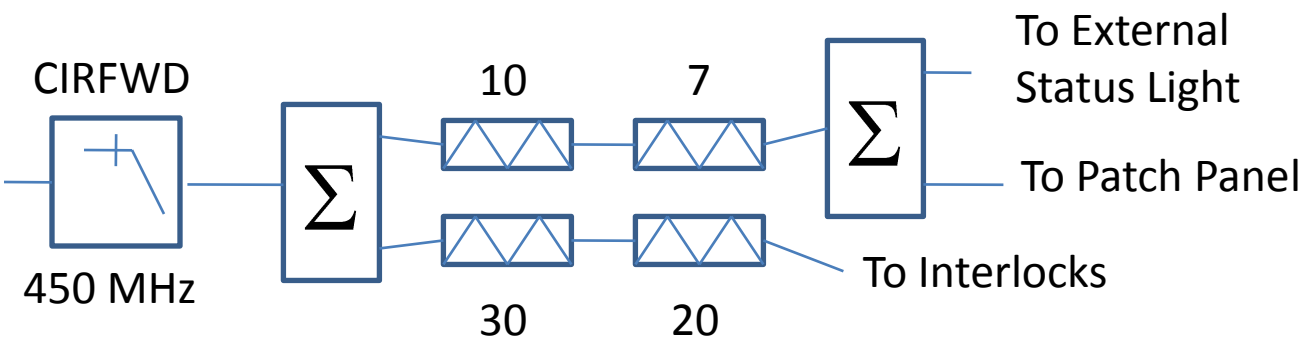
Top Panel Layout

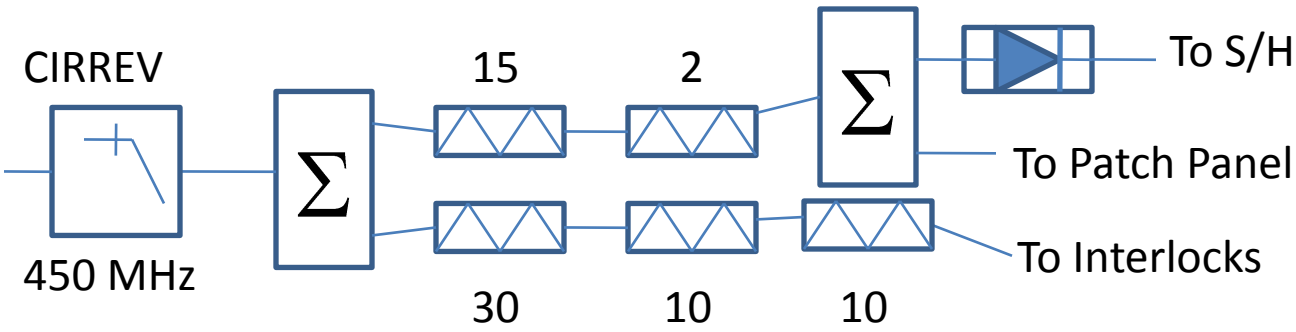
PD-R5 Top Plate (looking from the top)

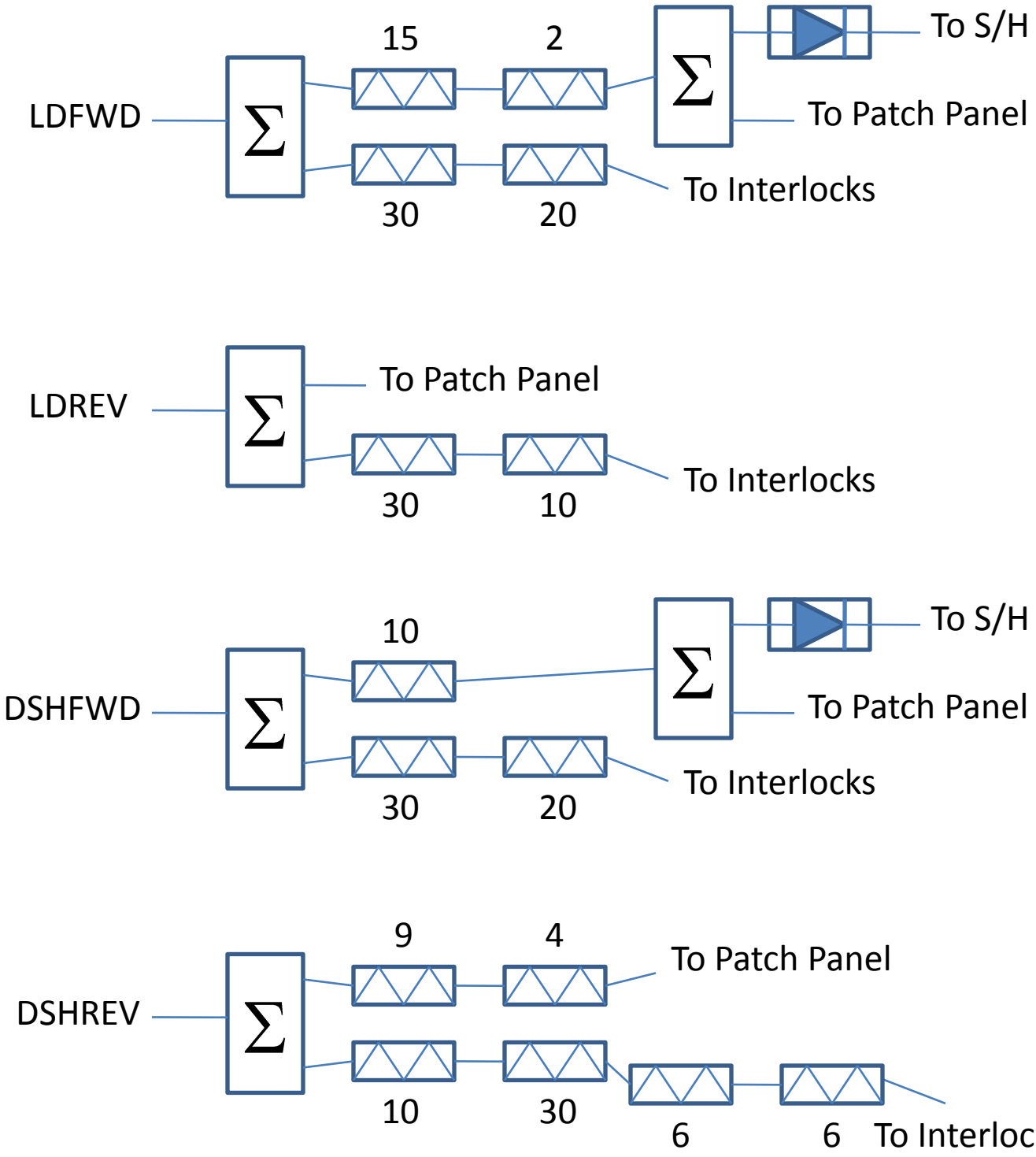


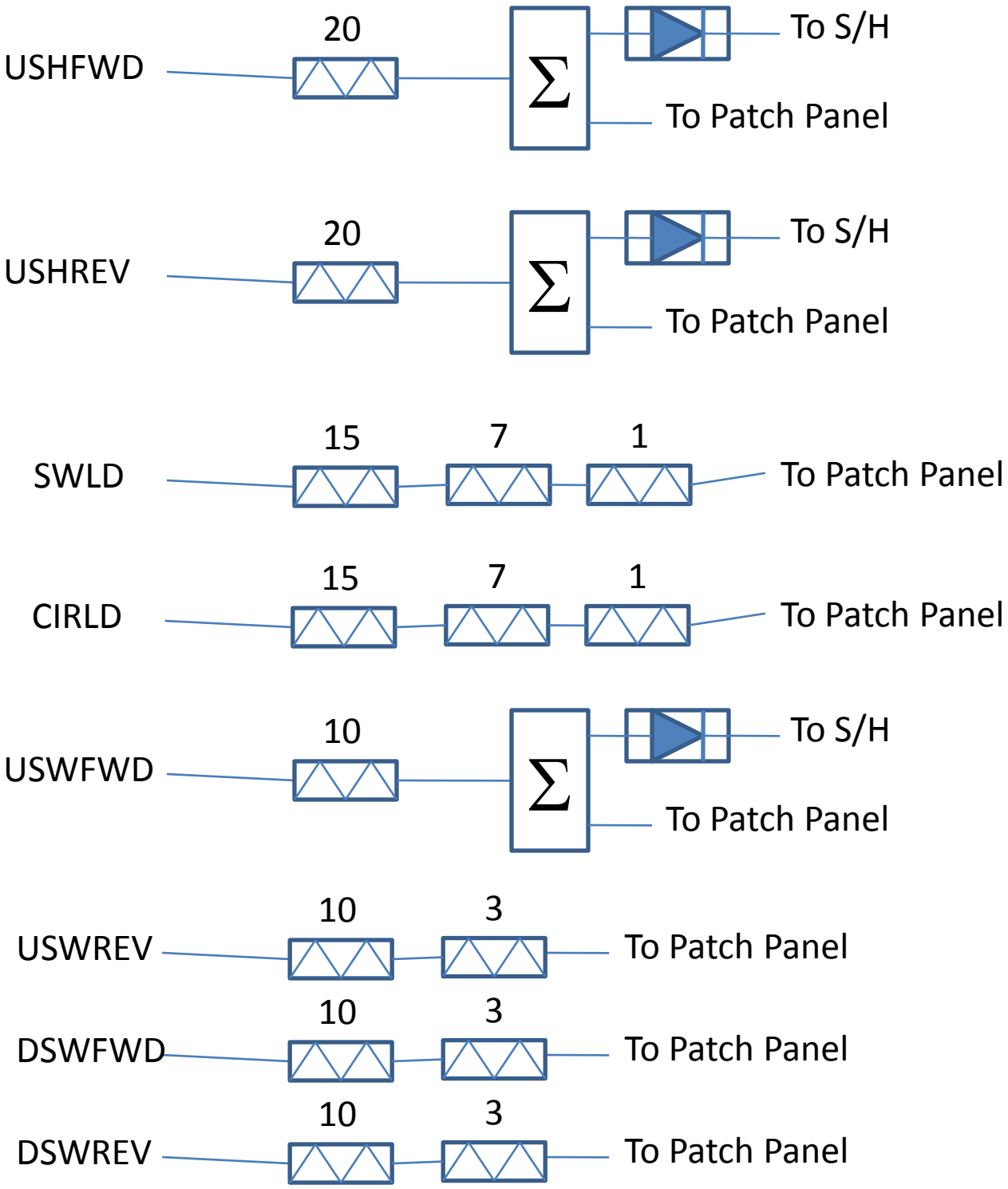

KLYFWD
450 MHz
Σ
15
2
30
20
Σ
To S/H
To Patch Panel
To Interlocks

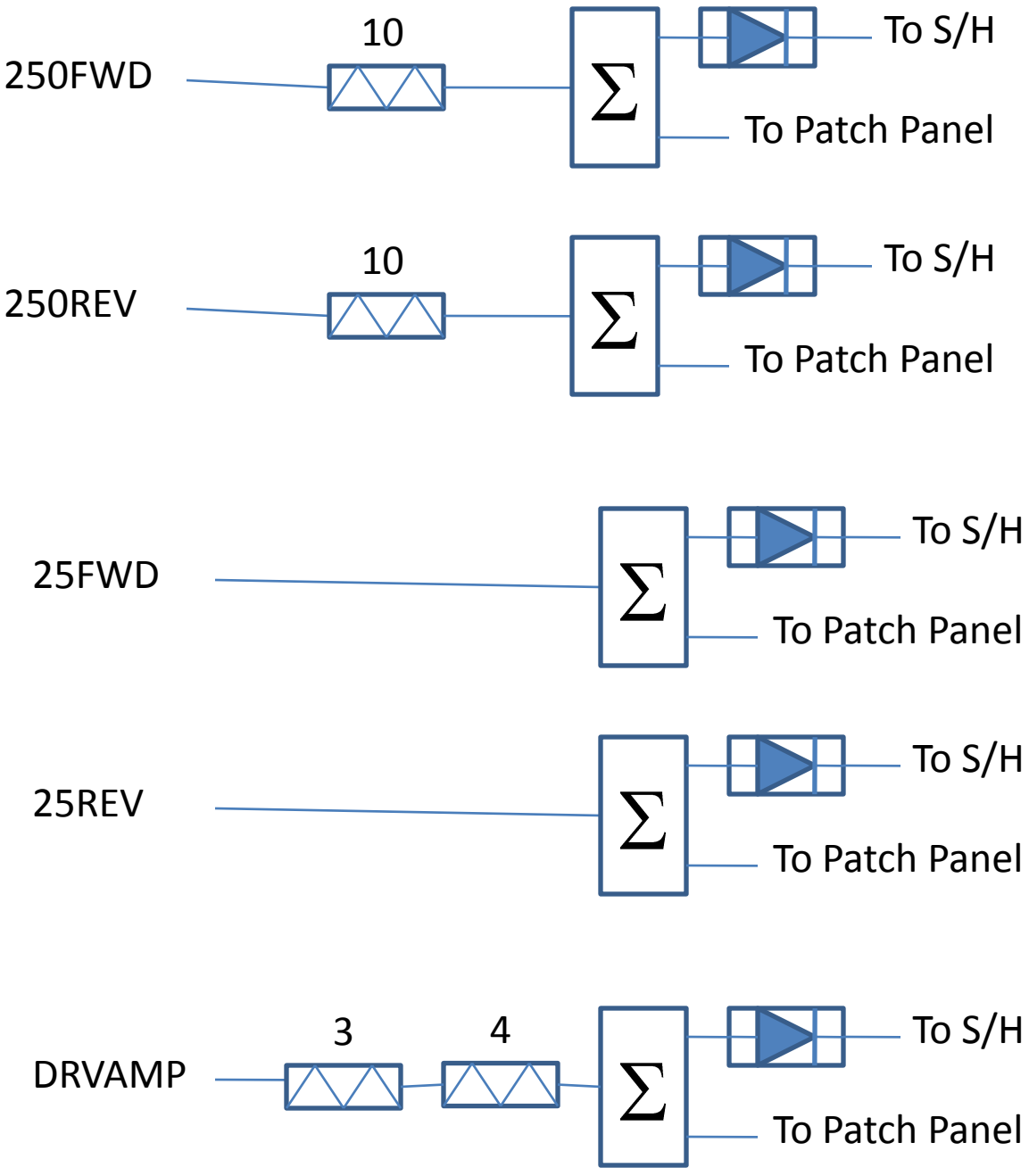

KLYREV
450 MHz
Σ
30
10
6
Σ
To S/H
To Patch Panel
To Interlocks


CIRFWD
450 MHz
Σ
10
7
30
20
Σ
To External
Status Light
To Patch Panel
To Interlocks


CIRREV
450 MHz
Σ
15
2
30
10
10
Σ
To S/H
To Patch Panel
To Interlocks


LDFWD
15
2
30
20
To S/H
To Patch Panel
To Interlocks
LDREV
To Patch Panel
30
10
To Interlocks
DSHFWD
10
30
20
To S/H
To Patch Panel
To Interlocks
DSHREV
9
4
10
30
6
6
To Patch Panel
To Interlocks


USHFWD
20
Σ
To S/H
To Patch Panel
USHREV
20
Σ
To S/H
To Patch Panel
SWLD
15
7
1
To Patch Panel
CIRLD
15
7
1
To Patch Panel
USWFWD
10
Σ
To S/H
To Patch Panel
USWREV
10
3
To Patch Panel
DSWFWD
10
3
To Patch Panel
DSWREV
10
3
To Patch Panel


250FWD
10
To S/H
To Patch Panel
250REV
10
To S/H
To Patch Panel
25FWD
To S/H
To Patch Panel
25REV
To S/H
To Patch Panel
DRVAMP
3
4
To S/H
To Patch Panel

Signal Description	Signal Label	Max Power (MW)	Measured Total Attenuation for Monitor (dB)	Measured Total Attenuation for Detector	Diode Detector #	HRM Channel	Coupling Factor (dB)	Max Power Monitor Signal (V)	Max Power Monitor Signal (dBm)
Klystron Fwd Power	KLYFWD	2.500	23.95	23.7	42	32	59.85	1.021	10.179
Klystron Refl Power	KLYREV	0.025	6.63	7.26	168	33	59.7	0.763	7.649
Circulator Fwd Power	CIRFWD	2.500	24.19				59.6	1.022	10.189
Circulator Refl Power	CIRREV	2.500	24.01	24.48	260	34	59.7	1.032	10.269
Circulator Load Power	CIRLD	2.500	23.84				60	1.016	10.139
Beam Line RF Fwd Power	LDFWD	2.500	23.58	23.31	275	35	60.2	1.023	10.199
Beam Line RF Refl Power	LDREV	0.025	3.86				60.1	1.002	10.019
Waveguide Switch Load	SWLD	2.500	23.71				60	1.032	10.269
Upstream Shutter Fwd Power	USHFWD	2.500	23.49	23.48	272	36	60.2	1.034	10.289
Upstream Shutter Refl Power	USHREV	2.500	23.4	23.99	203	37	60.1	1.057	10.479
Downstream Shutter Fwd Power	DSHFWD	0.500	16.75	16.88	279	38	60.5	0.970	9.740
Downstream Shutter Refl Power	DSHREV	0.500	17.14				59.7	1.017	10.150
Upstream Coax Switch Fwd Power	USWFWD	0.250	13.35	13.76	193	39	59.9	1.088	10.729
Upstream Coax Switch Refl Power	USWREV	0.250	13.72				59.3	1.117	10.959
Downstream Coax Switch Fwd Power	DSWFWD	0.250	13.76				60.3	0.991	9.919
Downstream Coax Switch Refl Power	DSWREV	0.250	13.64				60.3	1.005	10.039
250kW Fwd Power	FWD250	0.250	14.68	14.08	81	42	60	0.923	9.299
250kW Refl Power	REV250	0.250	14.57	14.91	163	43	59.7	0.967	9.709
25kW Fwd Power	FWD25	0.025	5.44	5.15	141	40	60.6	0.789	7.939
25kW Refl Power	REV25	0.025	4.41	5.15	249	41	60	0.952	9.569
Klystron RF Driver Power	KLYDRV	15.000 W	31.37	31.21	105	44	0	1.046	10.391

Max Power – The largest amount of power expected through the coupler for specified operations.

Measured Total Attenuation – The attenuation measured from the end of the cable that connects to the coupler to either the patch panel or the input of the diode detector.

Diode Detector # - The specific diode detector label.

HRM Channel – The HRM analog input channel that the diode detector is connected to.

Coupling Factor – The coupling factor of the specific coupler as listed by the manufacturer.

Max Power Monitor Signal – The largest signal you would expect to see during specified operations at a particular patch panel output.

Note: Total attenuation of any signal is the sum of the Measured Total Attenuation and the Coupling Factor.